MULTI-CD CONTROL FM/AM
TUNER DECK AMPLIFIER

SUPER TUNER III

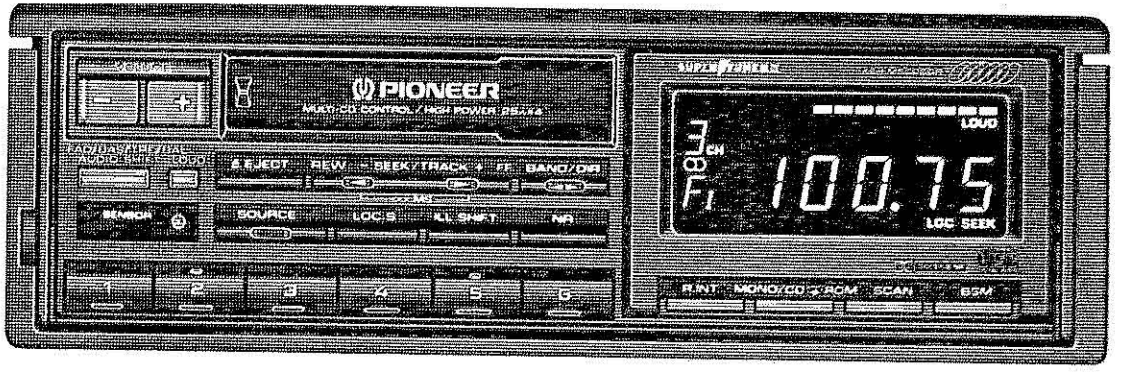
OWNER'S MANUAL

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lea atentamente este manual.

شكرا لك على شرائك جهاز بايونير هذا. قبل محاولة تشغيله تأكد من قراءة هذا الدليل.



PIONEER®

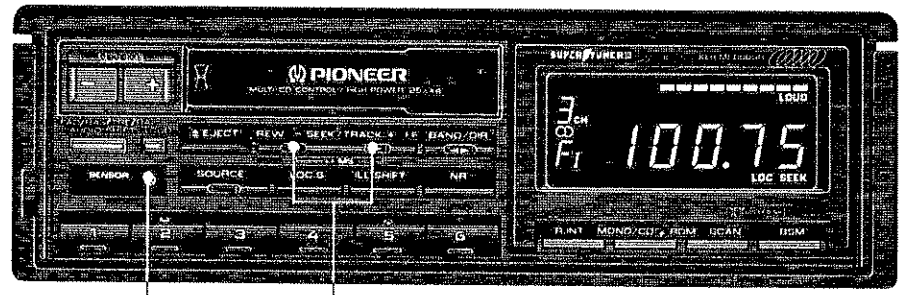
KEH-M5000QR

Features

- Multi CD Control function for full control over optional magazine type multi-play CD player.
- Built-in highly sensitive "Super Tuner Ⅲ" for automatic control of stereo separation, muting, and frequency characteristics to match the strength of the FM signal.
- The Best Stations Memory automatically memorizes the six best (strongest) stations in the six preset buttons in the order of their strength.
- Versatile tuning system (preset, preset scan, seek, manual).
- Logic design cassette deck for light-touch easy controls.
- Auto reverse function eliminates the need to turn the cassette over and allows uninterrupted playback.
- Built-in Dolby B NR for reduced tape hiss.
- Radio intercept allows uninterrupted reception during tape's Fast Forwarding/Rewinding.
- 4 × 25 W high power. Offers choice of different speaker systems; 2-, 4-, or 6-speaker system (with an optional power amplifier).

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

Changing the Tuning Steps



Changing The Tuning Steps

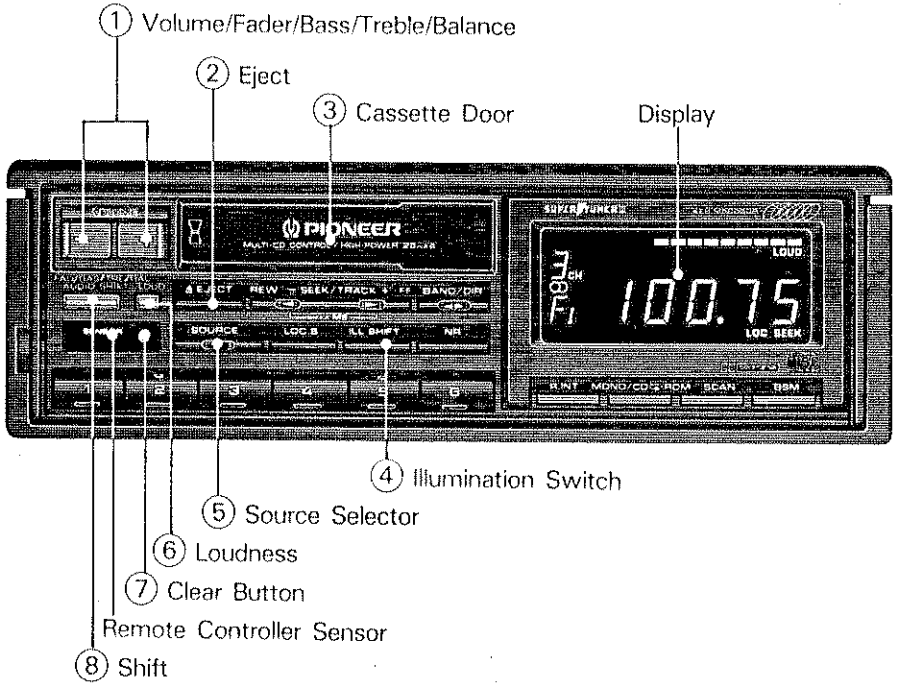
The unit is shipped from the factory preset for 10 kHz steps in AM and 0.2 MHz steps in FM. The following procedure should be used for applications outside of North America, Central America and South America to change the tuning steps and frequency ranges.

1. Turn the ignition switch off.
2. While pressing both the (+) and the (−) sides of button ①, turn the ignition switch on. It should be noted that changing the tuning steps also deletes frequencies stored in the tuning memories.

- Pressing Button ② and changing the vehicle's battery set the tuning steps and frequency range settings to their initial setting.

Specification		Initial setting	New setting
AM	Tuning steps	10 kHz steps	9 kHz steps
	Frequency range	530–1,710 kHz	531–1,602 kHz
FM	Tuning steps	0.2 MHz steps	50 kHz steps
	Frequency range	87.9–107.9 MHz	87.5–108 MHz

Adjusting Volume and Tone



• CAUTION

This unit will generate a buzzer approx. five seconds after the ignition key of the automobile is set to OFF to notify the driver to take out the car stereo before leaving the car. However, this function operates only when the tuning settings are AM 10 kHz, FM 0.2 MHz. When the tuning settings are switched to AM 9 kHz or FM 50 kHz, it does not function.

Using the Clear Button

Once all wiring is complete, press Button ⑦ with a thin, pointed object. Though not a normal occurrence, the microprocessor which controls the operation of this unit can be affected by electrostatic noise. This generally is indicated by such symptoms as no power being supplied when you switch the unit on, failure of buttons and controls, or an abnormal display. Should this happen, press Button ⑦ with a thin, pointed object to reset the microprocessor. Note that doing so also resets all audio controls, so you will have to make any desired settings again. This operation deletes all memory contents, such as frequencies stored in the preset memory, so you will have to make any desired settings again.

Switching Power On

Radio

Press Button ⑤ to switch the tuner power on. Press Button ⑤ again to switch the power off.

Tape

Insert the cassette tape through the Cassette Door ③, and the power will be automatically turned on to get the tape start being played back. To eject the tape, press the button ②.

- You will hear a few consecutive clicks from your unit when you have started the engine with the cassette tape inserted or when you have again mounted your unit on the Quick Release Mounting Bracket following dismounting. The sounds are only the sign of your unit's mechanical preparation being made, but does not indicate at all its functional failure.

ENGLISH

Changing the Source

When the cassette tape is inserted, the source changes at each press of the button ⑤: Tape → Radio → OFF. When a Multi-Play CD player—optionally available Multi-Play CD Player CDX-M70, for example—is connected to your unit, the source changes: Multi-Play CD Player → Tape → Radio → OFF.

Adjusting Volume/Fader/Bass/Treble/Balance

To adjust volume, press the button ①. The display changes at each press of the button ⑧: Volume → Fader → Bass → Treble → Balance. Press the button ① to adjust the displayed mode.

Adjusting Volume

Pressing the (+) side of Button ① increases the volume, while the (−) side decreases it.

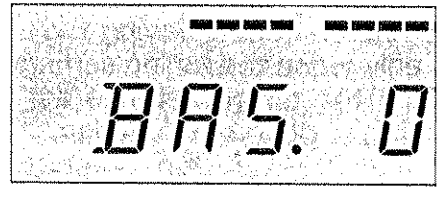
Adjusting the Fader

This function controls the balance between the front and rear speakers of a 4-speaker system. Pressing the (−) side of Button ① shifts the balance to the front speakers, while the (+) side shifts it to the rear speakers.

In the case of a 2-speaker system, set the display to "**FAD.0**". (In the case of a 4-speaker system the fader adjusts the balance between the front and rear pairs of speakers.) In the case of a 6-speaker system (4 speakers connected to this unit and 2 speakers connected to an external power amplifier connected to Pre-out), the front-rear balance is between the 2 front speakers and the rest.

Adjusting Bass

Pressing the (+) side of Button ① increases bass, while the (−) side decreases bass.

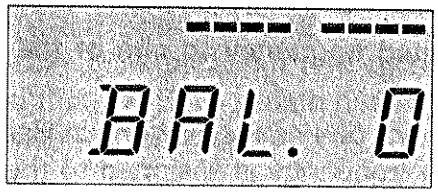


Adjusting Treble

Pressing the (+) side of Button ① increases treble, while the (−) side decreases treble.

Adjusting Balance

Pressing the (−) side of Button ① shifts the balance to the left speaker, while the (+) side shifts it to the right speaker.



- When you're adjusting fader, bass, treble or balance settings, the indicator will stop at the center setting. About 5 seconds after adjustment has been made, the display returns to its previous state.

Using the Loudness Function

Press Button ⑥ and the **"LOUD"** indicator will appear on the display. This "loudness" function enhances both the high and low ranges of sound to give even more power to output even at low volumes.

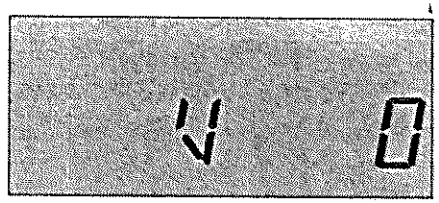
Switching Illumination Colour

Press Button ④ to switch illumination colour between green and amber. Pressing Clear Button ⑦ causes the illumination to be turned green.

Using Source Level Adjustor

You may wish to adjust volume when you have changed the source to radio, tape, or CD or when you have changed the radio band from FM to AM. You can do so on the basis of the volume of FM as follows:

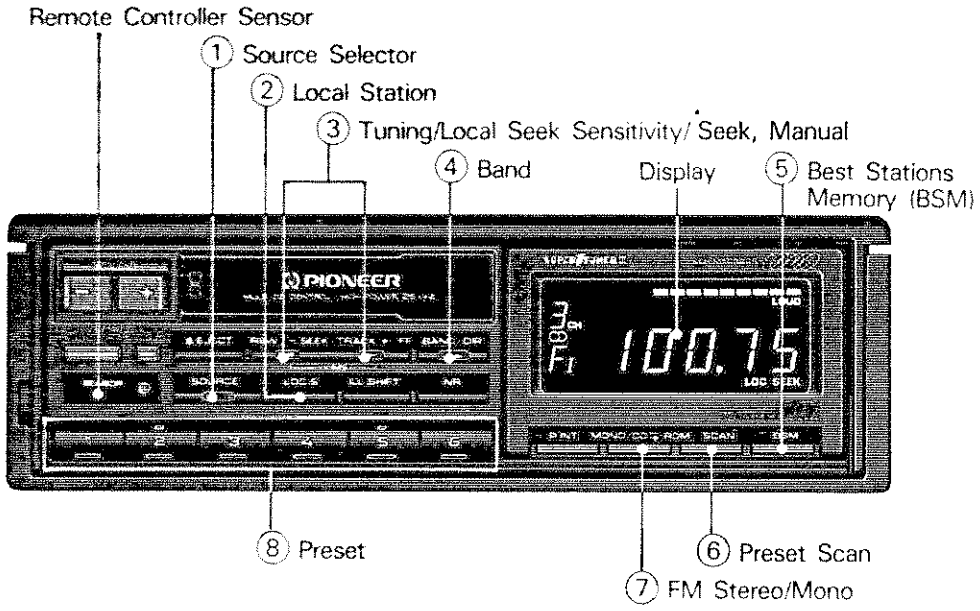
1. Use the button ⑤ to change the source. (In case of radio, change the band to AM.)
2. Hold down the button ⑧ for about 2 seconds, and the display will show you the volume of the source.

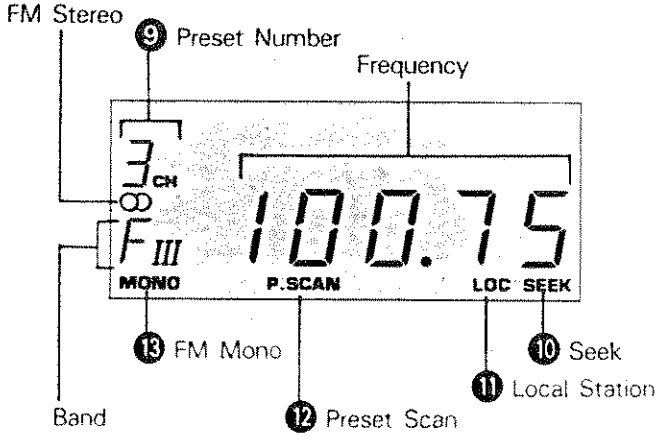


3. To increase the volume, press the (+) side of the button ①, and to decrease press the (−) side. You can adjust the volume within a span of V−4 and V+4. The display automatically returns to the previous showing when five seconds have elapsed after the adjustment.

- No adjustment can be made when an FM station is tuned in.

Using the Radio





1 **Press Button ① to switch the radio power on.**

2 **Press Button ④ to select a band.**

$F_I \rightarrow F_{II} \rightarrow F_{III} \rightarrow A$
(FM1) (FM2) (FM3) (AM)

- If the AM tuning band is changed to 9 kHz, the " M " display band will show.

3 **Use seek tuning to tune in a frequency.**
Confirm that the SEEK indicator ⑩ is shown on the display (if not, press the (+) and (−) sides of Button ③ at the same time). Press the (+) side of Button ③ to automatically tune in the next higher receivable frequency, and the (−) side for a lower frequency.

4 **Adjust volume and tone (see page 4).**

5 **Assign the tuned frequency to one of the buttons in Bank ⑧ (preset memory).**
Press and hold down one of the buttons in Bank ⑧ for at least two seconds. The frequency is assigned to the selected button when the preset number ⑨ stops flashing on the display. Up to 18 FM stations (6 each for FM1, FM2 and FM3), and six AM stations can be assigned to the preset memory buttons in Bank ⑧.

6 **Once a frequency is assigned to a button in Bank ⑧, you just need to press that button to tune it in.**
This also causes the number of the button pressed to appear at Position ⑨ on the display.

Preset Scan Tuning

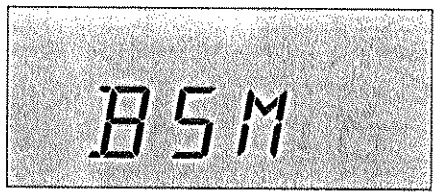
This function lets you automatically monitor the stations assigned to the preset buttons.

1. Press the button ⑥, and **"P.SCAN"** ⓬ will light up and the preset number ❾ flash.
   Each station assigned to the buttons in Bank ⑧ will be automatically tuned in for about eight seconds.
2. When you hear a station that you like, press Button ⑥ again to cancel preset scan tuning and remain at that station.

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in Bank ⑧, from strongest to weakest. It comes in handy when trying to find local stations while driving.

1. Press Button ④ and select a band.
2. Hold down Button ⑤. After about two seconds, a "beep" will sound to signal that the BSM search has started. At this time, **"BSM"** will flash on the display.



3. The frequency display will return once BSM search is complete, and frequencies are assigned to buttons 1 through 6 in Bank ⑧.

- At the end of the BSM search, the displayed frequency is that assigned to Button [1] of Bank ⑧.
- If there are fewer than six strong stations in the area, some of the buttons in Bank ⑧ will not be assigned frequencies, so they will retain any frequencies assigned to them previously.
- BSM search may take as long as 30 seconds in areas where there are few strong stations.
- You can cancel BSM search by pressing Button ④.

Manual Tuning

Use manual tuning when stations are too weak to be picked up by seek tuning.

1. Press both (+) and (−) sides of Button ③ at the same time to clear **"SEEK"** ❿.
2. Each press of the (+) side of button ③ increases the frequency in 0,2 MHz steps in the FM band, 10 kHz in the AM band. Pressing the (−) side of button ③ decreases the frequency. Holding down either side of button ③ changes the frequency at high speed.

- FM frequencies are tuned in 50 kHz steps and AM frequencies in 9 kHz steps after the tuning steps are changed.

Switching between FM Stereo and Mono

Generally, it is best to allow the "Super Tuner III" function to automatically set the optimum listening conditions. When there is a large amount of noise, you can press button ⑦ for clearer, mono reception ("**MONO**" ⓭ will appear on the display).

Adjusting Seek Sensitivity

The seek tuning function of this tuner lets you select between a local setting for reception of strong stations only, and a DX (distant) setting for reception of weaker stations. The local setting also has four seek tuning sensitivity levels for FM and two levels for AM to match local conditions.

Changing the Local Seek Sensitivity

1. Use Button ④ to select a band.
2. Hold down the button ② for more than two seconds, and the display will show you the current local seek sensitivity for about five seconds.

(Example: LOC-2)

3. While the local seek sensitivity remains on the display, press the (+) side of Button ③ to increase the sensitivity level, and the (−) side to decrease the level as shown below.

FM : LOC-1⇄LOC-2⇄LOC-3⇄LOC-4
AM: LOC-1⇄LOC-2

The LOC-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

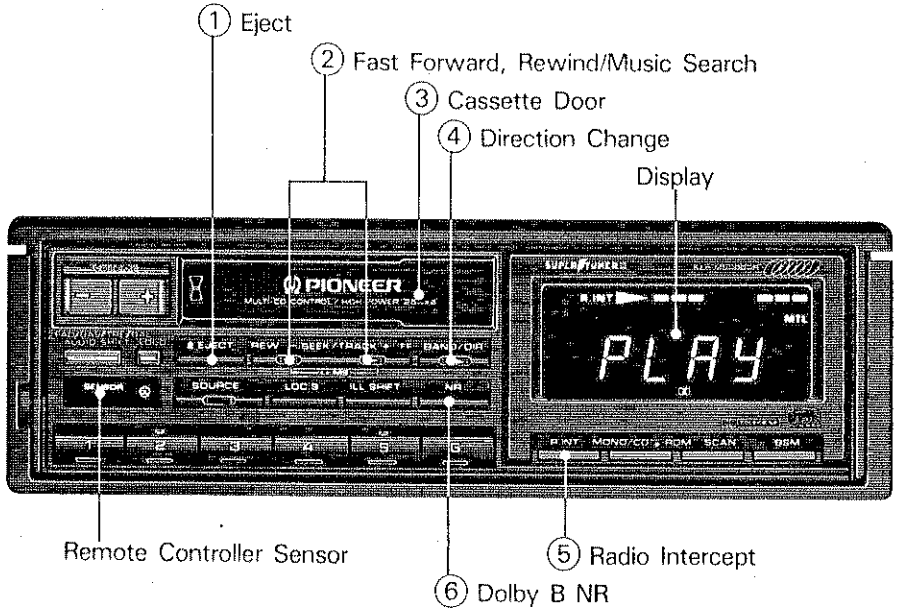
- The display of local seek sensitivity returns to the frequency when about five seconds have elapsed after the change of sensitivity.

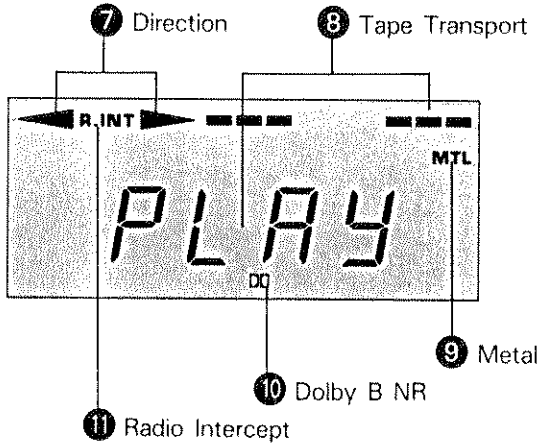
Switching between Local and DX

Press Button ② to switch between Local and DX (distant) seek tuning.

When "**LOC**" ⓫ is shown on the display, seek tuning is performed with the local seek sensitivity. Otherwise, seek tuning is performed with the DX seek sensitivity.

Using the Tape Deck





1 Insert the cassette tape into the slot ③, and power will be turned on and the tape begin being played back.
At this time, the tape running indicator ❽ and the tape running direction indicator ❼ will light up.

2 Adjust volume and tone (see page 4)

3 To eject the cassette tape, press the button ①.

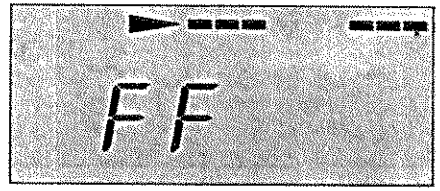
- Power is automatically turned off when the cassette tape has not been set within a few seconds. When this happens, remove the tape by pressing the button ① because of a possible trouble with the tape.
- A loose or warped label on a cassette tape may interfere with the eject mechanism of the unit or cause the cassette to become jammed in the unit. Avoid using such tapes or remove such labels from the cassette before attempting use.

Changing Program

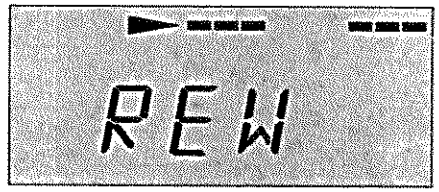
Press the button ④ to change the side of tape from A to B or vice versa.

Using Fast Forward and Rewind

1. To forward tape fast, press the (+) side of the button ②.



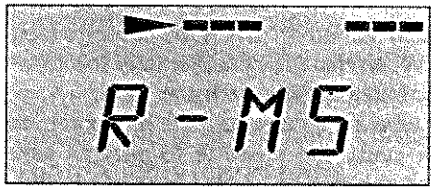
To rewind tape, press the (−) side.



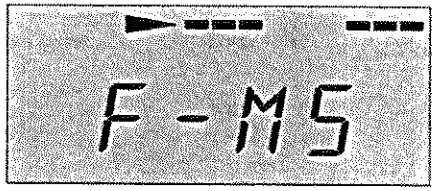
2. To release the Fast Forward or Rewind function, press the button ④.

Using Music Search

1. To repeat the current selection (A), press the (−) side of the button ② two consecutive times.



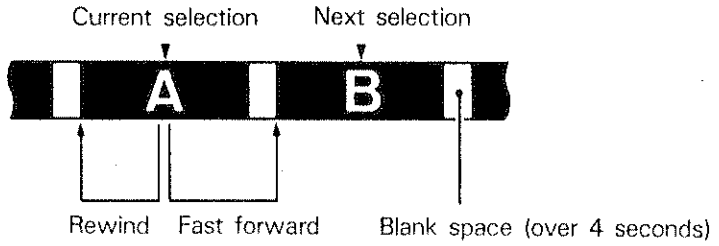
To hear the follwing piece of music (B) rather than continue the current selection, press the (+) side of the button ② two consecutive times. Pressing the button ② three consecutive times makes the normal sequence of playing resume.



2. To release the Music Search function, press the button ④.

The following errors will cause the music search function to operate improperly, even though the unit is not malfunctioning.

- Unrecorded "blank" portions between selections is less than 4 seconds → the blank portion cannot be detected by the unit.
- Pauses in recorded conversations are longer than 4 seconds → the unit reads these as blanks between selections.
- Portions are recorded at very low volume for more than 4 seconds → the unit reads these as blanks between selections.



Dolby B NR

To hear a tape recorded using a Dolby NR system, press the button ⑥. ("DD" ⑩ appears).

Auto Tape Selector

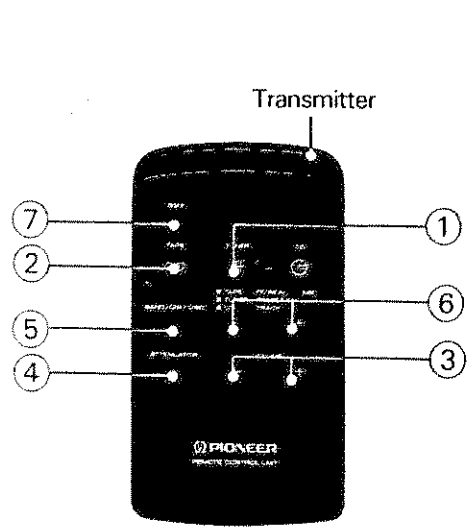
When a cassette tape is inserted, the automatic tape selector determines the tape type, and switches between 70 µs and 120 µs equalization. When it is a metal or chrome tape, "**MTL**" ⑨ comes on. When it is a normal tape, nothing comes on.

Using Radio Intercept

Use Radio Intercept to hear radio while Fast Forward or Rewinding.

1. Press the button ⑤ ("**R.INT**" ⑪ appears) before Fast Forward or Rewinding, and you will hear radio.
2. To release the Radio Intercept function, press the button ⑤ again.

- The Radio Intercept does not function when the Music Search is in operation.



① Tuner

Changes to Radio.

② Tape

Changes to Tape.

③ Volume

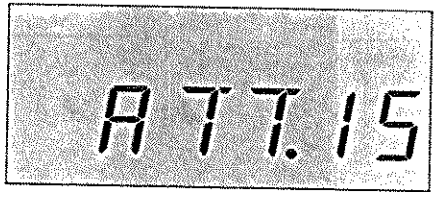
Press the (+) side to increase volume and the (−) side to decrease volume.

④ Attenuator

Press to reduce the volume to 1/10 of its current setting ("ATT" flashes).

Pressing again returns the volume to its original level.

- This function is available using the remote controller unit only.



Operating Radio

⑤ Band

Band changes.

⑥ Preset Channel

Press to tune the frequencies assigned to the preset button memory. Pressing the (+) side tunes in the next high preset button number, while (−) tunes in the next lower preset button number. The preset number changes at high speed when you hold either side of this button down.

⑦ Best Stations Memory

Hold on this button for about two seconds, and you will hear a beep and see Best Stations Memory start.

Operating Tape

⑤ Program

Press this button to change the side of tape from A to B or vice versa.

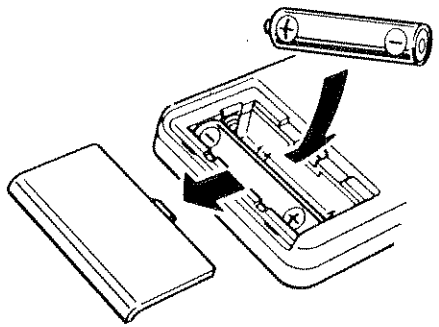
⑥ Fast Forward/Rewind

Press the (+) side for fast forward and the (−) to rewind the tape. Press this button twice to perform the music search operation, and a third time to return to normal playback.

Preparing to Use the Remote Controller Unit

Loading Batteries

1. Remove the battery compartment cover from the remote controller unit.
2. Load two batteries, whose type is UM-4, AAA, or R03, as applicable, that come with the unit into the remote controller unit, ensuring that their polarity (+/−) is correct.
3. Replace the battery compartment cover.

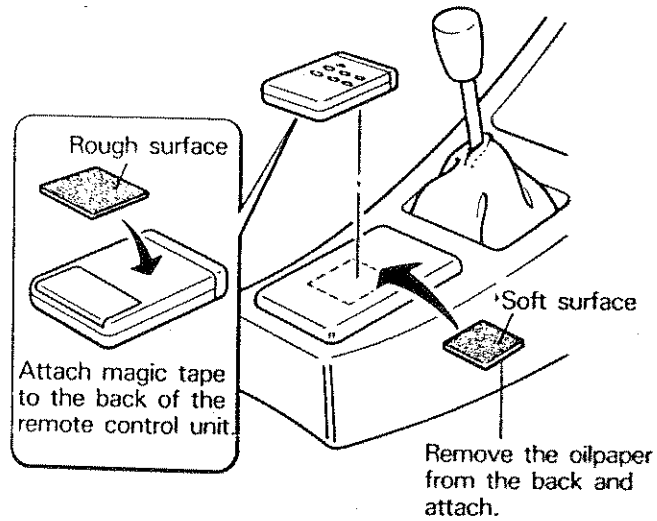


Precautions When Loading Batteries

Note the following precautions when loading batteries into the remote controller unit to avoid damage due to battery fluid leakage.

- Always check carefully that you are loading batteries with their ⊕ and ⊖ poles facing in the proper directions.
- Never mix old and new batteries. Always replace batteries with two new ones.
- Some batteries may appear to be identical but have different voltage ratings. Never mix battery types.
- Some batteries can be recharged and some cannot. Be sure to carefully read the label for the batteries you use.
- To avoid damage to the remote controller caused by battery leakage, remove the batteries from the remote controller if you do not plan to use it for more than one month. If you find that fluid has leaked, thoroughly wipe out the battery compartment and load a set of new batteries.

Installing the Remote Controller Unit


Rough surface
Soft surface
Attach magic tape to the back of the remote control unit.
Remove the oilpaper from the back and attach.

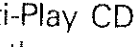
Affix a strip of Velcro tape to the back of the remote control unit. Remove the oil paper on the back and affix into place.

- Thoroughly wipe off the surface before affixing the Velcro tape.

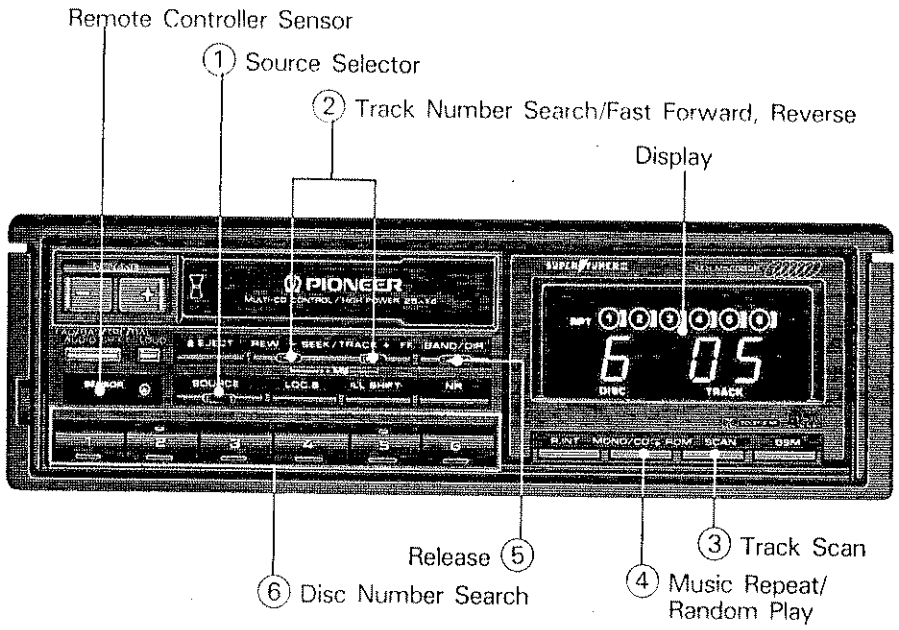
Precautions When Using the Multi-Play CD Control

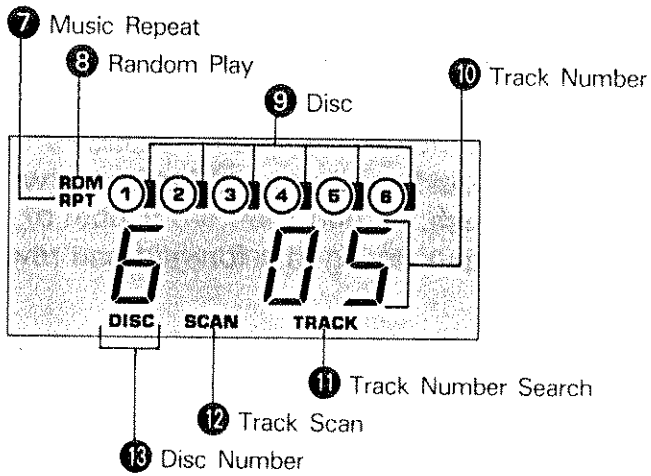
Precautions

- Keep the remote controller unit in an area not exposed to long periods of direct sunlight.
- The remote controller unit may not operate properly if the transmitter of the remote controller unit is pointed towards the floor or the seat of the vehicle.
- Since the transmitter employs and infrared system, it may not operate properly while car stereo unit is exposed to direct sunlight. In such a case, block the sunlight from the sensor and then perform the desired operation.
- If the remote controller fails to operate unless it is brought close to the unit, it may indicate that battery power is low. Replace the batteries in the remote controller.
- This model can be used as controller when an optionally available multi-play CD player (e.g., CDX-M70) is included in the system. In this case, however, the programmed play does not function.
- See pages 15 through 17 for details on operation procedures.
- The Owner's Manual for the multi-play CD player does not contain an explanation of the CD controls for this unit. Read this Owner's Manual for details on proper operation and keep it handy for later reference.
- Immediately after the multi-play CD player is connected to the system, it may not operate properly (i.e. the system will not enter the multi-play CD player mode when you press the source selector button). In this case, press the clear button of the main unit and the clear buton of the multi-play CD palyer, and attempt operation again.
- An *Err* (error) indicator is shown on the display and operation of the system becomes impossible when there are no discs in the magazine or when the discs are loaded into the magazine with their labels facing upwards. Whenever this message appears, remove the disc magazine and check the discs.
- The indicator *HHHH* flashes on the display and playback is automatically cut when the temperature around the multi-play CD player becomes too high. This protects the laser mechanism from serious damage. Listen to the radio until the temperature returns to normal.
  (This functions only when your unit is used with a Multi-Play CD Player CDX-M100.)

The Magazine Type Multi-Play CD players with  mark and the Magazines with the same mark are compatible for 5-inch (12 cm) discs.

Playing Compact Discs





1 Press Button ① to change the display to the Multi-Play CD player mode and to begin disc play.

Each press of Button ① changes the mode as follows:
Multi-Play CD player→Tape→Tuner→OFF

2 Use the Disc Number Search function to select a disc.

Select the desired disc by pressing one of the buttons in Bank ⑥. The number of the disc selected appears at Position ⓭ on the display.

- Display ❾ indicates whether the magazine is loaded or empty.
- If the number at Position ⓭ on the display does not change when you press a button in Bank ⑥, it means that there is no disc loaded in that tray.

3 Use Track Number Search to select a track.

Confirm that "**TRACK**" is shown at Position ⓫ on the display. If not, press the (+) and (−) sides of Button ② at the same time. Press the (+) side of Button ② to increase the number at Position ❿, or the (−) side to decrease the number. Holding either side of Button ② down changes the track number at high speed.

4 Adjust volume and tone (see page 4).

5 To stop disc play, press Button ①.

At another press, the normal play resumes from about where it stopped.

- If you stopped operating a Multi-Play CD Player CDX-M100 in the middle of music and then restarted, the player resumes playing from the very beginning of the selection with which you stopped.

Note:

- After you press a Button in Bank ⑥, it may take some time before play begins due to the time necessary to load and set the disc in the mechanism.
- The display counts down the number of seconds between tracks if the spacing is rather large (-'02, -'01).

Using Track Scan

This function lets you scan through the tracks on a disc by playing only the first ten seconds of each track.

1. Press Button ③ (**"SCAN"** ⓬ appears).
2. To cancel track scan and continue play at the current track, press Button ③ again.

- After track scan plays through all of the tracks, disc play resumes from the beginning of the track from which track scan was started.

Using Music Repeat and Random Play

Each time ④ is pressed, the mode is changed in the following order: Repeat (**"RPT"** ❼ appears)→Random Play (**"RDM"** ❽ appears)→Release.

Music Repeat

1. To repeat the music you are listening to, select the repeat mode (**"RPT"** ❼ appears).
2. To release Music Repeat, press Button ⑤.

- When Music Repeat is not operational, the compact discs contained in the magazine will play sequentially from beginning to end, and then start from disc 1 again.

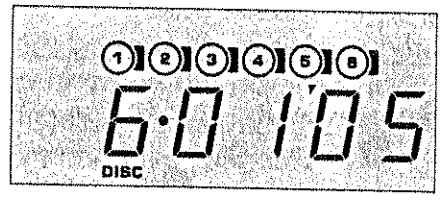
Random Play

1. To play music randomly, select the random play mode (**"RDM"** ❽ appears). The built-in microcomputer selects at random from all pieces of music recorded in those discs loaded in the magazine.
2. To release Random Play, press Button ⑤.

- Since selections are played in random order, the same selection may be played twice in succession.
- When a Multi-Play CD Player CDX-M100 is used, random selection is made from a disc being played.

Using Fast Forward and Reverse

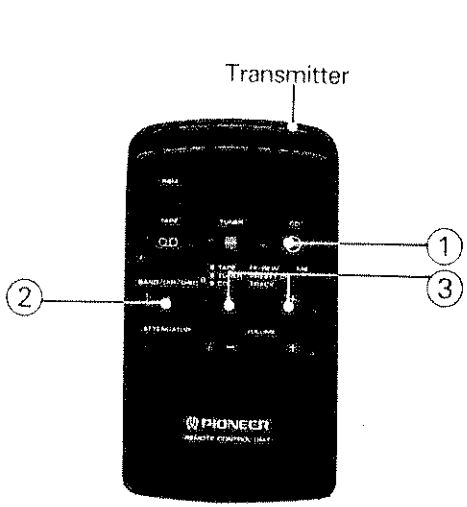
1. Press simultaneously both (+) and (−) sides of the button ② (**"TRACK"** ❿ goes out). At this time the display will show the amount of elapsed disc play time.



2. Press the (+) side of Button ② for fast forward, and the (−) side for reverse.

- Sound is output during fast forward and reverse operations.

Playing Disc by Remote Control



① CD
Changes to CD playing.

② Disc Number Search
Used to specify the number a disc loaded in the magazine. Each press of this button sequentially advances the number.

③ Track Number Search
Press to search for a selection (track number) on the current disc. Press the (+) side to increase the track number on the display, and the (−) side to reduce the track number. Holding down either side of this button changes the track number at high speed.

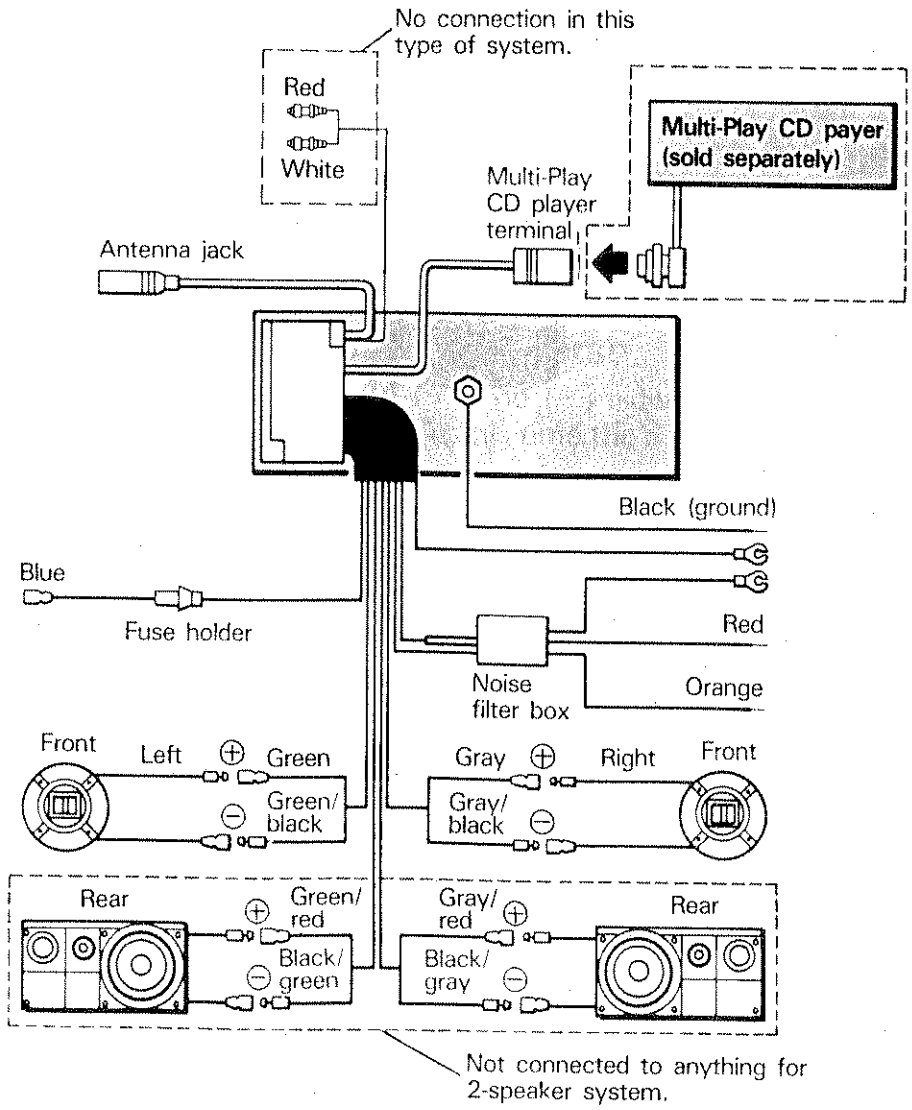
Connections

Note:

- To avoid shorts in the electrical system, be sure to disconnect the battery ⊖ cable before beginning installation.
- Be sure to properly connect the color coded leads. Failure to do so can cause malfunctions.
- Be sure to connect the grounding lead to a metal part, such as the chassis of the car. If the lead is not connected properly, this unit will not operate at all.
- Since a unique BPTL circuit is employed, never wire so the speaker leads are directly grounded or the left and right speaker ⊖ leads are common.
- Refer to the owner's manual for details on connecting the various cords of the power amp and other units, then make connections correctly.
- Speakers connected to this unit must be high-power type possessing maximum input of at least 25 W and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here can damage the speakers.
- When the power amp is being linked with this system, be sure not to connect the blue lead to the amp's power terminal. Likewise, when linking this system with the auto-antenna, do not connect to power terminal for the antenna. Such connection can make overcurrent cause malfunctions.
- Be sure that the antenna cord and speaker cord are apart as far as possible from each other in order to prevent noise interruption. When this unit is connected to an optionally available Multi-Play CD player, such as CDX-M70, the connecting cord must also be as distant as possible from the antenna cord for the same purpose.

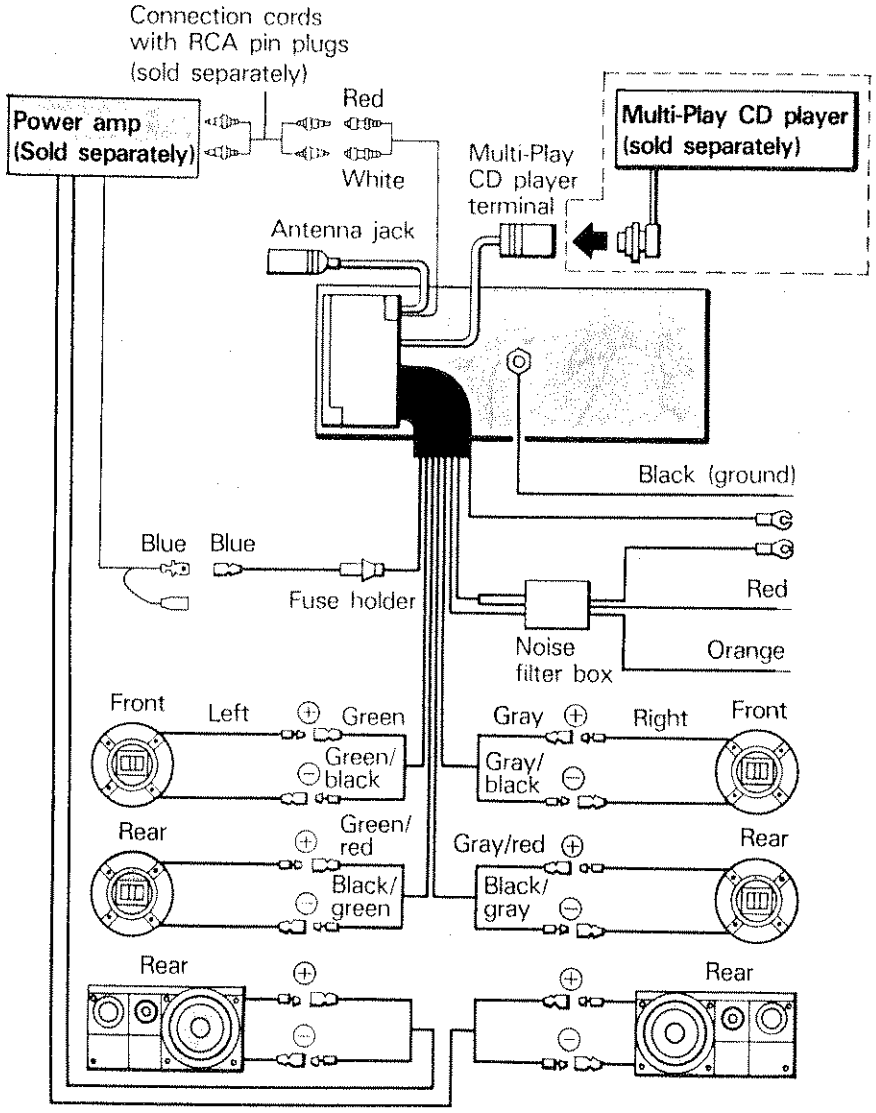
Blue	If this unit is combined with a power amp, connect its blue lead to the blue lead (system control terminal) of the power amp. If combined with an auto-antenna, connect its blue lead to the relay control terminal of the auto-antenna. (MAX. 300 mA, 12 V DC)
Orange	To terminal always supplied with power regardless of ignition switch position.
Red	To electric terminal controlled by ignition switch (12 V DC) ON/OFF.
Black (ground)	To vehicle (metal) body.

2/4-speaker system



Installation

6-speaker system



Note:

- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance. (Fig. 1)

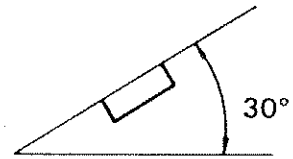
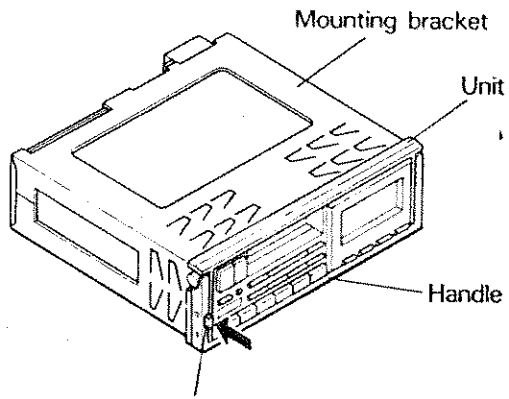


Fig. 1

Removing the Unit



Press this button to raise the handle. Hold the handle and pull the unit toward you to remove it from the mounting bracket.

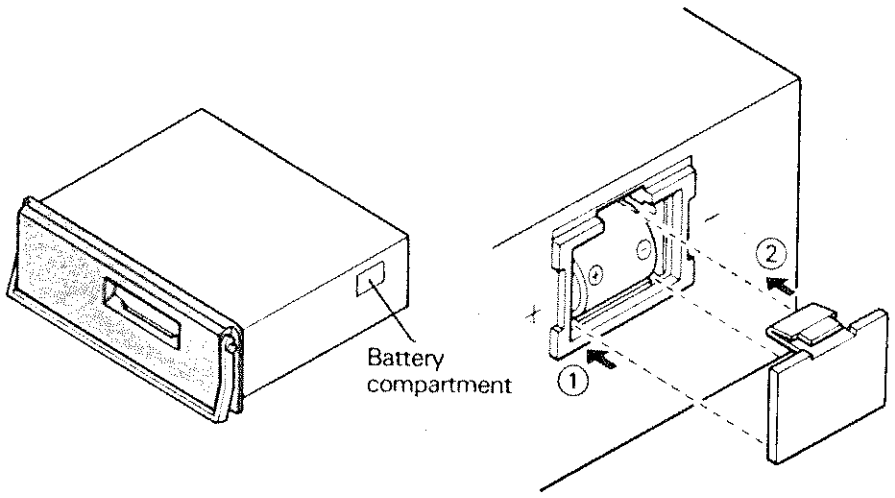
- If you raise the handle, power is automatically turned off.

Insertion of Battery

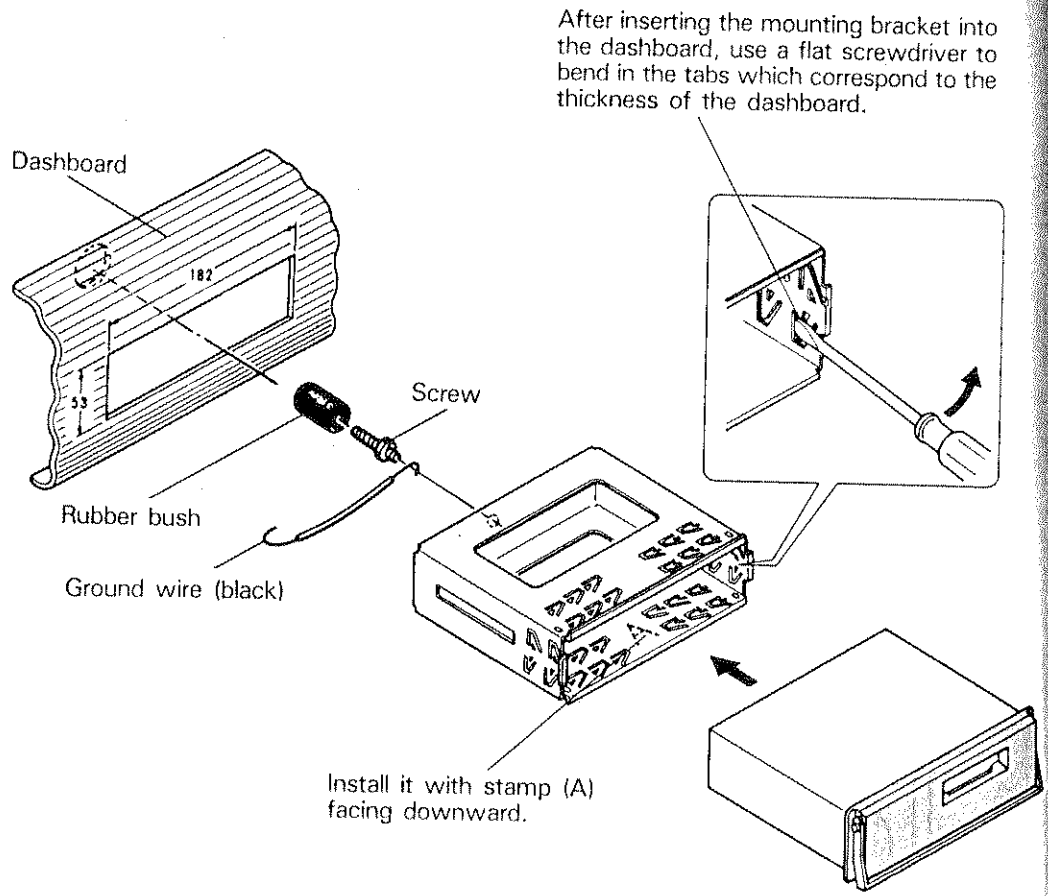
Be sure to load the unit with battery (4LR44 or A544) before using the quick release function.

1. Remove the cover of the battery compartment in the right side of the car stereo unit.
2. Insert a battery into the battery compartment with correct ⊕ and ⊖ polarity as indicated on the unit.
3. Replace the battery compartment cover.

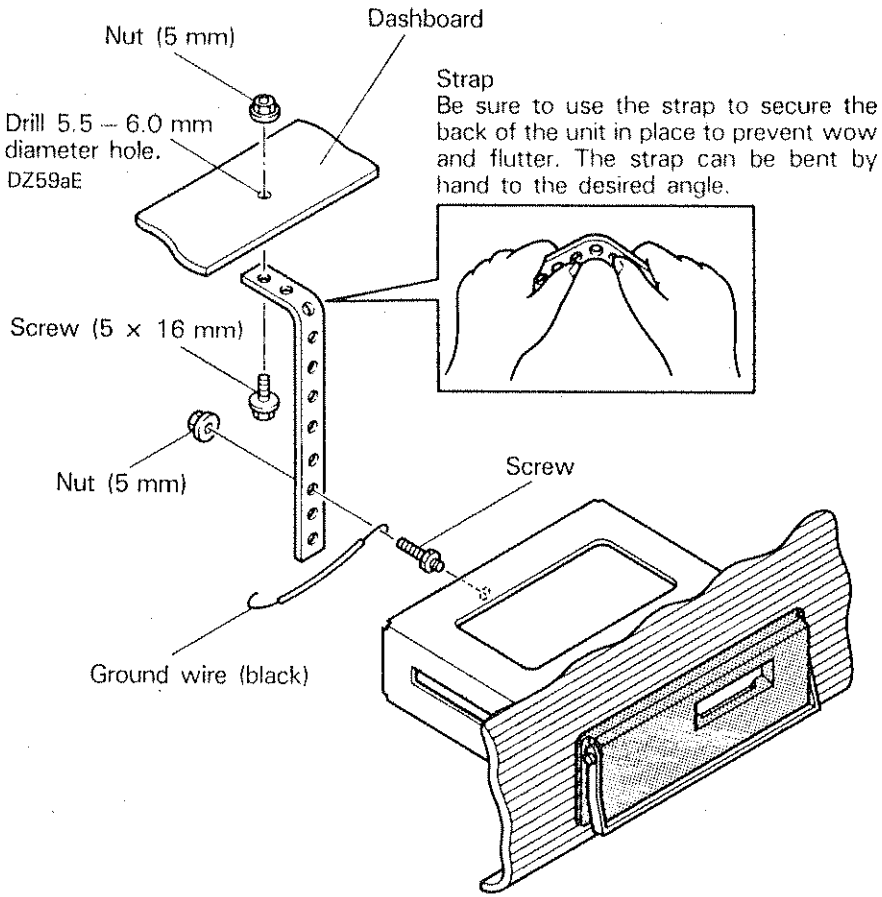
- When the battery is nearing exhaustion, it may become impossible to tune a preset frequency even though one of the preset buttons is pushed. In such a case, replace the old battery with a new one of the same type.



Installation with the rubber bush

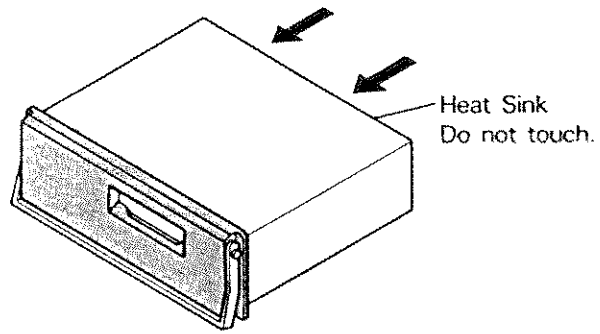

After inserting the mounting bracket into the dashboard, use a flat screwdriver to bend in the tabs which correspond to the thickness of the dashboard.
Dashboard
182
53
Screw
Rubber bush
Ground wire (black)
Install it with stamp (A) facing downward.

Installation without the rubber bush


Nut (5 mm)
Dashboard
Strap
Be sure to use the strap to secure the back of the unit in place to prevent wow and flutter. The strap can be bent by hand to the desired angle.
Drill 5.5 – 6.0 mm diameter hole.
DZ59aE
Screw (5 x 16 mm)
Nut (5 mm)
Screw
Ground wire (black)

Pay attention to the heat sink

- The back of the unit can become extremely hot. When removing the unit from the mounting bracket, be sure to avoid touching the back for a few minutes.



Replacing Fuses

- Replace the fuse for the system control terminal (blue) only with the type stipulated on the fuse holder.
- The filter box contains a fuse for continuous power supply and a fuse for accessory power supply (Fig. 1). Remove the filter box cover, remove the fuses using a commercially available fuse grip, and replace the fuses only with the types stipulated on the fuse (Fig. 2).

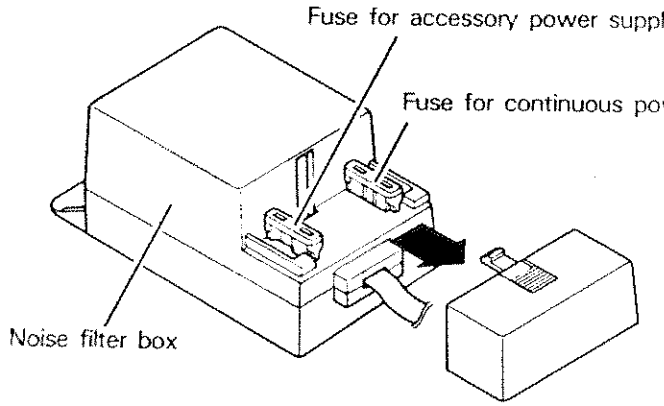


Fig. 1

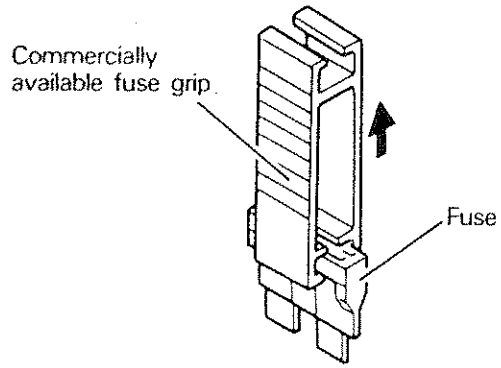


Fig. 2

Care and Maintenance

- Do not use tapes longer than C-90-type (90 min.) cassettes. Longer tapes can interfere with tape transport.
- If the playback head becomes dirty, sound quality will suffer. Periodically (once or twice a month) clean the head with a cotton swab soaked with alcohol. (Fig. 1)
- Storing cassettes in areas directly exposed to sunlight or high temperatures can distort them and subsequently interfere with tape transport. (Fig. 2)
- Store unused tapes in a tape case where there is no danger of them becoming loose or being exposed to dust.
- If the car's battery is disconnected for any reason the preset memory will be erased and must be reprogrammed after reconnection of the battery.

• After Service

In the event this unit does not function properly, contact your dealer or the nearest authorized PIONEER Service Center.

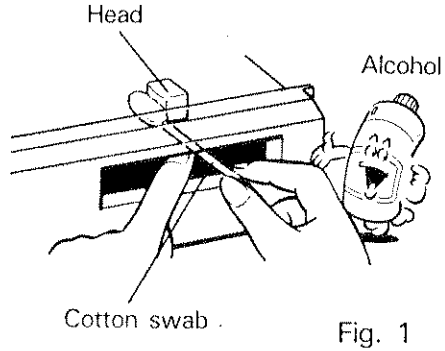


Fig. 1

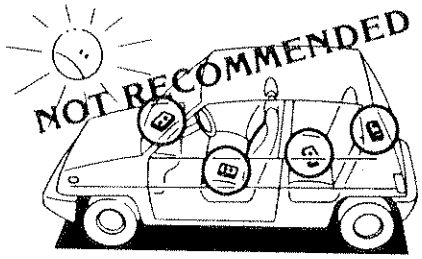


Fig. 2

Specifications

General

Power source . . . . . 14.4 V DC (10.8 – 15.6 V allowable)
Grounding system . . . . . Negative type
Max. current consumption . . . . . 7.5 A
Dimensions
(chassis) . . . . . 178(W) × 50(H) × 150(D) mm
(nose) . . . . . 188(W) × 58(H) × 12(D) mm
(mounting bracket) . . . . . 182(W) × 52(H) × 166(D) mm
Weight . . . . . 1.6 kg

Amplifier

Maximum power output . . . . . 25 W × 4 (EIAJ)
Continuous power output . . . . . 13 W × 4
(1% dist. at 1 kHz)
Continuous power output is 11 W per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.
Load impedance . . . . . 4 Ω (4 – 8 Ω allowable)
Max. output level/
output inpedance (pre out) . . . . . 500 mV/1 kΩ
Tone controls (bass) . . . . . ±10 dB (100 Hz)
(treble) . . . . . ±10 dB (10 kHz)
Loudness contour . . . . . +12 dB (100 Hz), +7 dB (10 kHz)
(volume: −30 dB)

Tape player

Tape . . . . . Compact cassette tape (C-30 – C-90)
Tape speed . . . . . 4.8 cm/sec.
Fast forward/rewind time . . . . . Approx. 100 sec. for C-60
Wow & flutter . . . . . 0.08% (WRMS)
Frequency response . . . . . Metal: 30 – 19,000 Hz (±3 dB)
Stereo separation . . . . . 45 dB
Signal-to-noise ratio
. . . . . Metal: Dolby B NR IN: 66 dB (IEC-A network)
Dolby NR OUT: 60 dB (IEC-A network)

FM tuner

Frequency range . . . . . 87.9 – 107.9 MHz (200 kHz)
87.5 – 108 MHz (50 kHz)
Usable sensitivity . . . . . 11 dBf (1.0 µV/75 Ω, mono)
50 dB quieting sensitivity . . . . 16 dBf (1.7 µV/75 Ω, mono)
Signal-to-noise ratio . . . . . 70 dB (IEC-A network)
Distortion . . . . . 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response . . . . . 30 – 15,000 Hz (±3 dB)
Stereo separation . . . . . 40 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range . . . . . 530–1,710 kHz (10 kHz)
. . . . . 531–1,602 kHz (9 kHz)
Usable sensitivity . . . . . 18 µV (25 dB) (S/N: 20 dB)
Selectivity . . . . . 50 dB (±10 kHz)
. . . . . 50 dB (±9 kHz)

Note:

Specifications and the design are subject to possible modification without notice due to improvements.